

572

Notice of Allowability	Application No.	Applicant(s)	
	09/890,249	KIM ET AL.	
	Examiner	Art Unit	
	Prenell P. Jones	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith, (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10/11/06.
2. ☒ The allowed claim(s) is/are 1,4-6 and 10-12.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. <input type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ 7. <input type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____ |
|---|--|

Reason for Allowance

1. Claims 1, 4-6 and 10-12 are allowed over prior art.

The following is statement for reason for allowable subject matter. Applicant has amended previously rejected claims 1, 4, 5 and 6 to include previously indicated allowable subject matter associated with claims 3-6 and 10-12. Furthermore, Applicant canceled previously rejected claims 2 and 7-9, and previously objected to claim 3.

The prior art fail to teach or suggest with respect to claim 4, orthogonal complex-domain spreading is performed with Hadamard codes and the scrambling codes for complex-domain scrambling are produced using orthogonal Hadamard codes, with respect to claim 5, orthogonal complex-domain spreading is performed with Walsh codes and the scrambling codes for the complex-domain scrambling are produced using orthogonal Hadamard codes, with respect to claim 6, orthogonal complex-domain spreading is performed with Gold codes and the scrambling codes for the complex-domain scrambling are produced using orthogonal Hadamard codes, with respect to claim 10 and 11, two complex multipliers wherein the first complex multiplier performs a first orthogonal complex-domain spreading with the input of the transmitting data of the supplemental channels of the OVFS codes, and a second complex multipliers for adding modulated signals and correcting phase of de-spread signal, and with respect to claim 1, when the spreading data do not vary, wherein;

$$C_{\text{scramble}, I} [n] + j C_{\text{scramble}, Q} [n] = - C_2 [n] C_{\text{scramble}, Q} (n-1) H_b [n-1] H_b [n] + j C_2 [n] C_{\text{scramble}, I} [n-1] H_a [n-1] H_a [n].$$

and when the spreading data vary, wherein;

Art Unit: 2616

$$C_{\text{scramble}, I}[n] + j C_{\text{scramble}, Q}[n] = C_1[n] + C_2[n]$$

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prenell P. Jones whose telephone number is 571-272-3180. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (571) 272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Prenell P. Jones 

November 11, 2006


CHI PHAM
SUPERVISORY PATENT EXAMINER

11/13/06